

# **Psychological adaptation to spousal bereavement in old age.**

## **The role of trait resilience, marital history, and context of death**

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## Abstract

This research examined the effect of marital status and gender on various indicators of psychological adaptation, namely depressive symptoms, loneliness and life satisfaction. It further explores the role of trait resilience, marital history, and context of death for predicting these outcomes in bereaved individuals. 480 widowed individuals aged between 60 and 89 were compared with 759 married peers. Main effects were found for marital status and gender for all indicators. The regression analyses illustrate the multifaceted structure of psychological adaptation. Trait resilience is a key factor in adapting to spousal bereavement, whereas marital history and the context are secondary.

*Keywords:* widowhood, well-being, resilience, marital history

## **Introduction**

Although a normative transition in old age, spousal bereavement is also one of the most stressful life events (Holmes & Rahe, 1967; Clark & Georgellis, 2013). Numerous studies have provided empirical evidence for a decline in various indicators of well-being after spousal loss (Bennett & Soulsby, 2012). It has been shown that bereaved individuals are typically characterised by more depressive symptoms, higher rates of loneliness, lower life satisfaction, fewer positive emotions, higher global stress and poorer subjective health compared to their married peers (Ong, Fuller-Rowell, & Bonanno, 2010; Stroebe, Schut, & Stroebe, 2007). Even though, on average, the consequences of bereavement are negative, there are large differences with regard to individuals' responses to the event (Stroebe et al., 2007). Furthermore, psychological adaptation does not evolve uniformly, that is, not all components of well-being seem to be equally affected (Luhmann, Hofmann, Eid, & Lucas, 2012).

Several theoretical approaches have been proposed to explain the individual differences in psychological adaptation, and most of them have underscored the importance of personality, marital history and contextual factors related to loss (Bennett & Soulsby, 2012; Stroebe et al., 2007). However, empirical findings are not always consistent, primarily due to the diverse indicators used for psychological adaptation, but also to the lack of appropriate control groups, which could help to contextualize the outcomes. Against this background, the present contribution aims to examine how trait resilience, marital history and loss related factors predict various indicators of psychological adaptation to bereavement. In addition and in order to contextualize the well-being outcomes of the bereaved, they are compared with those of married controls.

There is accumulating evidence indicating that bereavement-induced stress varies depending on individual's personality traits (Clark & Georgellis, 2013; Pudrovska & Carr, 2008). A personality characteristic that has emerged as an important predictor of psychological adaptation in more recent studies is trait resilience (Ong et al., 2010). Resilience refers to the ability to maintain relatively stable, healthy levels of psychological and physical function in the face of disruptive events (Bonanno, Wortman, & Nesse, 2004). In fact, there is empirical evidence indicating that resilience is associated with resistance to and recovery from loss-related stress (Ong, Bergeman, Bisconti, & Wallace, 2006). Resilient bereaved individuals have been found to show more positive emotions (Bonanno, Westphal, & Mancini, 2011) and to have a greater emotional complexity, meaning that they are able to experience both positive and negative affects even during periods of stress, when affective space is limited (Coifman, Bonanno, & Rafaeli, 2007). Although personality variables provide important insights into adaptation to spousal loss, they can explain only part of the variance of loss-related emotional outcomes. Psychological adaptation seems also to be substantially linked to preloss factors (e.g. relational quality) and to the context of death (Wortman & Boerner, 2011).

In fact it has been argued that spousal bereavement is often linked to the quality of relationship with the deceased. A low degree of conflict and high degree of closeness in the marital relationship may be problematic for adjustment to bereavement (Prigerson, Maciejewski, & Rosenheck, 2000). Carr and colleagues (2000) reported elevated symptoms of grief if the marriage was characterised by warmth, and low levels of conflict, and lower levels of yearning in case where the relationship was conflicted. Other research confirmed these results: Bereaved individuals who rated their marriage as less satisfying and more conflictual reported lower rates of depression (Bonanno et al., 2002), and experienced less of a decline in positive emotions after spousal loss (Ong et al., 2010). In addition to the quality of relationship, which is a general

satisfaction measure, the perceived spousal support could also be important. In contrast to the impact of marital quality, the findings with regard to spousal support are more mixed. Although support from others has been cited as critical for adaptation to spousal loss, some studies have found little evidence for this link (Balaswamy & Richardson, 2001; Ott, Lueger, Kelber, & Prigerson, 2007; Soulsby & Bennett, 2015).

Strongly associated with the perception of marital quality is the way the bereaved individual experiences the death of their spouse. Although for most the death of a spouse is a distressing experience, for many others it can be a relief. Interestingly, there seem to be no studies, which have examined the relationship of this variable with psychological outcomes. In contrast, a factor that has been studied often is the role of time passed since spousal loss. However, the results are controversial. While some studies report that most of the bereaved recover within one or two years following the loss (Itzhar-Nabarro & Smoski, 2012; Clark & Georgellis, 2013; Koren & Lowenstein, 2008), others show that well-being measures remain low even after several years (Bennett & Morgan, 1992; Bennett, 1997, 1998; Lucas, Clark, Georgellis, & Diener, 2003).

In addition, socio-demographic variables can account substantially for psychological adaptation, especially *gender*, which has received particular attention in research. As such, most studies agree that men generally suffer more from spousal loss. They show a larger increase in depressive symptoms, higher levels of loneliness and a greater decline in life satisfaction than women do (Cheng & Chan, 2006; Lee, Demaris, Bavin, & Sullivan, 2001; Stroebe, Stroebe, Schut, 2001). But there are also studies reporting that gender does not contribute to psychological wellbeing after bereavement (Bennett, 2005). Findings regarding *age* suggest, that older bereaved adults experience less intense and fewer lasting negative consequences than younger ones (Bennett & Soulsby, 2012; Bonanno et al., 2004), possibly due to the fact, that bereavement is a

more expected event in older than in younger age. Finally, education seems not to be protective for adaptation, since depressive symptoms after bereavement are similar across all *educational levels* (Ha & Ingersoll-Dayton, 2011).

Beside the fact that there are large individual differences in reacting to loss, well-being outcomes do not seem to be evenly affected. In existing research, psychological adaptation has been operationalized by various indicators spanning from general well-being measures, to either clinical measures like depressive symptoms or positive emotions or even personal growth (Stroebe et al., 2007; Gerrish, Dyck, & Marsh, 2009; Bennett, 2010). These indicators refer therefore, to distinct components of well-being, which are not necessarily comparable. There is broad consent in well-being literature that subjective well-being can be divided into an affective and a cognitive component, which are closely related, but clearly separate constructs. Affective well-being is defined as the presence of pleasant affect like joy and the absence of unpleasant affect like depression. Cognitive well-being in contrast encompasses the rational evaluation of life satisfaction (Diener, Suh, Lucas, & Smith, 1999). The importance of differentiating between these two indicators – especially when examining adaptation to critical life events – was shown in a recent meta-analysis by Luhmann and colleagues (2012). In line with findings of Diener and colleagues (1999), the analysis revealed that bereavement has indeed different effects on affective and cognitive components of well-being. I.e. the initial impact of bereavement is worse and more persistent for cognitive than for affective well-being.

A third component with a high relevance in the context of spousal loss is social well-being. Indicated by loneliness, it comprises the feeling of missing an intimate relationship (emotional loneliness) and of a social network (social loneliness) (De Jong Gierveld & Van Tilburg, 2006). For bereavement in older age both types are characteristic. Most individuals have their closest emotional attachment to their intimate partner and loss of this bond is associated

with stronger emotional loneliness than other losses (van der Houwen et al., 2010). An intimate relationship is also an important source of social support, especially for men, who rely on their wives for cultivating social contacts, but also for people in older age, when social resources generally decline (Utz, Swenson, Caserta, Lund, & deVries, 2013). Therefore loneliness is a very common and one of the most pronounced challenges of bereavement (Perrig-Chiello, Spahni, Höpflinger, & Carr, 2015; Utz et al., 2013).

With the aim of gaining a more comprehensive perspective, in this contribution various components of well-being are considered. Psychological adaptation is conceptualized as a status encompassing affective, social, and cognitive components, operationalized by corresponding indicators: depressive symptoms (affective), loneliness (social), and life satisfaction (cognitive). In order to contextualize the outcomes of bereaved individuals they are compared with those of same-aged married controls. In addition and in order to study the variability of reactions to loss three groups of predictors are considered, a) personality (trait resilience), b) relational factors (marital history), and c) context of spousal death (emotional valence of death, time since loss) (Bennett & Soulsby, 2012; Stroebe et al., 2007; Wittchen & Hoyer, 2006). The role of these three groups of factors for explaining the large individual differences on adaptation to marital loss has rarely been considered all together in the same study. Considering the various research gaps, this contribution addresses two research questions:

- 1) Do individuals who experienced a marital loss differ from married peers with regard to various indicators of psychological adaptation, namely depressive symptoms, loneliness and life satisfaction?
- 2) What is the role of personality (trait resilience), relational (marital history) and contextual factors of spousal death (emotional valence of death, time since loss) as predictors for

depressive symptoms, loneliness, and life satisfaction in widowed individuals when taking into account age, gender and educational level?

We expect that the widowed will show on average worse scores across all indicators of psychological adaptation than the same-aged married peers. We further predict that trait resilience, as a dispositional trait and an enduring behaviour tendency, is a better predictor for all three outcome variables than either marital history or contextual factors.

## **Method**

### *Study and participants*

This research is based on data of a questionnaire study on psychological adjustment to bereavement and divorce carried out in 2012. The study has been approved by the ethical committee of the University of Bern. This paper focuses on the widowed group and compares them with same-aged married controls. Participants were recruited using a random quota sample, stratified by age, gender, and marital status, supplied by the Swiss Federal Office of Statistics. A total of 1,471 widowed people, who lost their partner within the last 5 years, and 2,381 married non-institutionalised individuals aged between 60 and 89 years, received an invitation letter together with the questionnaire. The total return rate was 32%. The final sample comprises 480 widowed people (281 women, 199 men), aged on average 72.81 years ( $SD = 7.82$ ), who experienced spousal loss on average 3.07 years ago ( $SD = 1.30$ ). The control group includes 759 (360 women, 399 men) continuously married people aged 73.37 years ( $SD = 8.16$ ). The majority had an educational attainment of secondary (55%) or tertiary (29%) level (primary level 16%), and were of Swiss origin (87%; 12% from other European countries, 1% other). Fifty-one per



cent of the participants declared to be Protestants, 38% Catholics, and 11% without religious confession.

### *Measures*

**Psychological adjustment:** *Depressive symptoms* were assessed with the short version of the Centre for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977; Hautzinger & Bailer, 1993). The scale consists of 15 items scored on a 4-point scale (0 = 'not at all' to 3 = 'all the time'; Cronbach's alpha .85). *Loneliness* was measured with the short version of the de Jong Gierveld Loneliness Scale (De Jong Gierveld & Van Tilburg, 1999). The scale consists of 6 items rated on a 5-point scale (1 = 'no' to 5 = 'yes'; Cronbach's alpha .84). *Life satisfaction* was measured with the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; Schumacher, 2003), which consists of 5 items rated on a 7-point scale (1 = 'completely disagree' to 7 = 'completely agree') and loading onto one factor (Cronbach's alpha .86).

**Personality factors.** *Psychological Resilience* was measured with the brief version of the resilience scale (RS-11) (Wagnild & Young, 1993; Schumacher, Leppert, Gunzelmann, Straus, & Brähler, 2005), a one-dimensional scale with 11 items scored on a 7-point scale (1 = 'I don't agree' to 7 = 'I agree completely'; Cronbach's alpha .87). This scale assesses personal competence (self-reliance, independence, determination, invincibility, mastery, resourcefulness, and perseverance) and acceptance of self and life (adaptability, balance, flexibility, and a balanced perspective of life).

**Relational factors, marital history.** *Marital happiness* was assessed with the self-developed question 'In general, how happy are/were you in this partnership?' answered on a scale from 1 = 'very unhappy' to 10 = 'very happy'. *Spousal support* was measured with the question

‘Do/did you feel supported by your deceased partner in your development?’ and was rated on a 5-point scale from 1 = ‘No’ to 5 = ‘Yes’.

**Contextual factors of spousal death.** *Emotional valence* of loss was asked with the question ‘The loss of a partner is usually a very painful event. However circumstances vary greatly from person to person and the loss may be experienced in various ways. How have you personally experienced this loss?’ and was answered on a scale from 1 = ‘very negative’ to 10 = ‘very positive’. The *time since loss* (in years) was calculated with the difference between date of loss and date of participation.

Analyses are controlled for socio-demographic factors, including *age* (in years), *gender* (0 = female; 1 = male) and *educational level* (primary, secondary, i.e. apprenticeship, high school etc., and tertiary level, i.e. higher education, university).

For all continuous measures a higher score corresponds to a stronger manifestation.

### *Analytical strategy*

Our analysis is structured into two parts. First, we compared widowed and married individuals with regard to depressive symptoms, loneliness, and life satisfaction, as well as to personality, relational factors, and demographic variables, using independent t-test or Chi-Square test. The effect sizes Cohen’s *d* and Cramer’s *V* are reported as standardized measures of the magnitude of the observed effects. In order to test for possible interaction effects of marital status and gender, we performed two-way analyses of variance. Second, by focusing on the widowed individuals, hierarchical regression analyses were used to assess the predictive role of trait resilience, marital history, context of death, and socio-demographic variables, on the three outcome variables. Analyses were conducted with SPSS Statistics 19.0 for Mac OS X (IBM).

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Insert Table 1 here

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## Results

### *Sample characteristics and group comparisons*

Means and standard deviations or number of people and proportions for all variables in the analyses are presented in Table 1. As in general population, women were over-represented among the widowed group (58% vs. 47%;  $\chi^2 = 14.54, p < .001, V = .11$ ), reflecting women's longer life expectancy than men and their tendency to marry older partners. The widowed and married group did not differ regarding age, education, trait resilience, marital happiness or spousal support. Widowed people reported a higher rate of depressive symptoms ( $T = 6.35, p < .001, d = .24$ ) and loneliness ( $T = 4.74, p < .001, d = .24$ ), and lower scores in life satisfaction ( $T = 4.31, p < .001, d = .23$ ) than the married controls. Age was not related to any of these indicators of psychological outcomes (depressive symptoms:  $r = .03, p > .51$ ; loneliness:  $r = .00, p > .98$ ; satisfaction with life:  $r = .08, p > .08$ ). Gender, in contrast, correlated significantly with loneliness ( $r = .12, p < .05$ ) in the widowed and with life satisfaction ( $r = .08, p < .05$ ) and depressive symptoms ( $r = -.12, p < .01$ ) in the married group. To explore whether the effect of marital status on the various indicators of adaptation is confounded with gender, we conducted two-way analyses of variance (Table 2). Results show significant main effects for both factors. Widowed women and men reported more depressive symptoms ( $M = 0.64$  vs.  $0.49, F(1, 1193) = 36.88, p < .001$ ), more loneliness ( $M = 1.90$  vs.  $1.70, F(1, 1222) = 26.05, p < .001$ ), and lower life satisfaction ( $M = 5.35$  vs.  $5.57, F(1, 1224) = 16.60, p < .001$ ) than their married peers. Married and widowed women reported more depressive symptoms ( $M = 0.59$  vs.  $0.50, F(1,$

1193) = 8.07,  $p < .01$ ), lower life satisfaction ( $M = 5.42$  vs.  $5.56$ ,  $F(1, 1224) = 4.37$ ,  $p < .05$ ), however less loneliness ( $M = 1.74$  vs.  $1.81$ ,  $F(1, 1222) = 7.07$ ,  $p < .01$ ) than married and widowed men. None of the interaction terms was significant, suggesting that marital status and gender have independent effects on all outcomes.

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Insert Table 2 here

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#### *Predictors of depressive symptoms, loneliness, and life satisfaction in widowed individuals*

Socio-demographic variables (age, gender and educational level) were entered as a first block into the hierarchical regression analysis. In a second step trait resilience was added, followed by factors regarding relationship history, in the final step context of spousal death variables were included. The same procedure was used for all three outcome variables.

Results show (Table 3) that *depressive symptoms* were best predicted by trait resilience with lower scores associated with more depressive symptoms. More depressive symptoms were furthermore associated with higher marital happiness, a more negative emotional valence of the loss and shorter time since the event. Spousal support and socio-demographic variables were non-significant. The total explained variance was 26% for depressive symptoms, with resilience accounting for 18%, marital history for 1%, and the context of death for 7%.

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Insert Table 3 here

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*Loneliness* was best predicted by lower trait resilience, a more negative emotional valence of loss and shorter time since the event (Table 4). In addition, male gender was significantly associated with greater loneliness. Factors regarding marital history were not significant. The

total amount of variance explained by all variables was 23%. Only trait resilience (accounting for 17% of the variance) and the context of spousal death factors (4% of the variance) led to a significant change in  $F$ .

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Insert Table 4 here

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Lower *life satisfaction* (Table 5) was significantly associated with lower scores in trait resilience and a more negative emotional valence of loss. Younger age and less spousal support were predictive for lower life satisfaction, while the effect of time since loss was not. Overall, the included predictors explained 22% of the variance in life satisfaction. Trait resilience (15%) was the strongest predictor, whereas relational factors (4%) as well as context of death factors (3%) explained a small but nevertheless significant amount of variance.

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Insert Table 5 here

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## Discussion

The results confirm the adverse consequences of spousal bereavement on all three indicators of psychological adaptation found in other research: widowed participants reported more depressive symptoms, more loneliness and lower life satisfaction than their married counterparts. Gender differences, i.e. lower life-satisfaction and more depressive symptoms in women, were not specific to the bereaved group. The results also confirm the positive effect of trait resilience on psychological adaptation to bereavement (Ong et al., 2010; Rossi, Bisconti, & Bergeman, 2007).

As expected, higher scores in trait resilience were related to more beneficial scores in depressive symptoms, loneliness and life satisfaction, and accounted for the highest amount of explained variance in all three outcomes. *Marital history* also accounted for psychological adaptation but in a differential way. Whereas high scores in *marital happiness* were associated with more depressive symptoms, received *spousal support* was significantly related to life satisfaction. It seems that the benefits of a supportive marital relationship sustain widowed people after spousal loss and are helpful for adjustment, at least for the cognitive component of well-being, in contrast to memories of partnership happiness which are detrimental to the emotional well-being. With regard to the context of death, the reported *emotional valence* of loss experience appears to be an important factor in adjusting to spousal bereavement. Like trait resilience it was related to all outcome variables and a negative experience was associated with more depressive symptoms, more loneliness and lower life satisfaction. *Time since loss* was a significant predictor of depressive symptoms and loneliness. While depressive symptoms and loneliness seem to decrease with time passing, the lower life satisfaction of bereaved seems to persist. This finding confirms that even if spousal bereavement is a normative transition in old age, there are long-lasting negative consequences for psychological adaptation, at least for its cognitive component. This finding is in line with the results of Luhmann et al.'s (2012) meta-analysis, which showed that bereavement has more persistent effects on cognitive than on affective well-being (see also Bennett & Morgan, 1992; Bennett, 1997, 1998).

When taking into account these predictors, younger *age* was also related to lower life satisfaction, which is in line with previous studies (Bennett & Soulsby, 2012). On the one hand, this effect can be explained by the fact that psychological well-being is generally higher in older age (Mroczek & Kolarz, 1998), on the other hand, since widowhood in young old age is less expected, individuals are possibly less prepared than older adults to face spousal loss both

emotionally and practically (Bennett & Soulsby, 2012). In the regression analyses, *gender*, however, was only associated with loneliness. Compared to women, men seem to be more affected by loneliness after spousal loss. Possible explanations of the lower scores in loneliness for women are – besides the fact that bereavement is a more normative biographical transition for women – that they have in general better social networks than men, and they cope differently (e.g. more disclosure, Stroebe et al., 2001). In contrast the association between gender and depressive symptoms, as well as between gender and life satisfaction could not be confirmed in our study, at least when other predictors are considered. In line with previous research *educational level* was not predictive for any of the outcomes in our analyses (Ha & Ingersoll-Dayton, 2011).

Taken together: besides trait resilience and the emotional valence of loss, which were two strong predictors for all three outcome measures, all other variables were differentially related to the various indicators of psychological adaptation. This finding confirms the necessity to take into account the multifaceted structure of psychological adaptation (Luhmann et al., 2012) and shows the limitations of considering only one single indicator when assessing such a complex construct. Future research on psychological adaptation to spousal loss should consider this complexity, which would contribute to a higher comparability of empirical findings. A further strength of this study – besides the consideration of various indicators of psychological adaptation – is the simultaneous examination of personal, relational as well as contextual variables as predictors for the various outcomes. The large array of predictors considered – especially the inclusion of trait resilience – contributes to a better understanding of psychological adjustment to spousal bereavement in old age.

Despite these strengths some limitations have to be considered. Due to the cross-sectional design, our data cannot conclusively answer the question whether there is a full psychological

adaptation to spousal loss. However, we took into consideration the time since loss, which is a valuable indicator. Furthermore, some of our variables were assessed with single item questions and with retrospective self-reporting. There remain some reservations regarding the reliability of these measures (Bowling, 2005; Carr, 2006). In addition, even if we take into account trait resilience, there may also be other important personal resources, which were not considered in this paper. Empirical research has shown that resources such as the Big Five personality traits (Pai & Carr, 2010; Spahni, Morselli, Perrig-Chiello, Bennett, 2015), religious devoutness and spirituality (Stroebe, 2004; Michael, Crowther, Schmid, & Allen, 2003) are also relevant for predicting psychological adaptation. However, it should be pointed out that trait resilience is strongly related to personality traits (Reich, Zautra, & Hall, 2010) and to religiosity and spirituality (Hood, Hill, & Spilka, 2009). Nonetheless future studies should take into account these personal resources by using structural equation modelling to consider all outcomes and predictors in one model. Such an analytical approach would allow a more comprehensive explanation of the interconnectedness of these predictors.

Despite these limitations, we believe that this study makes an innovative contribution to existing research by introducing resilience as a central predictor for psychological adaptation to bereavement and by differentiating between various well-being outcomes. The results suggest that effective tailoring of interventions might focus on widowed people with lower trait resilience. Further, interventions to enhance trait resilience should target specific components of wellbeing rather than trait resilience globally.



## References

- Balaswamy, S., & Richardson, V. E. (2001). The cumulative effects of life event, personal and social resources on subjective well-being of elderly widowers. *International Journal of Aging & Human Development*, 53, 311-327.
- Bennett, K. M. (1997). A longitudinal study of wellbeing in widowed women. *International Journal of Geriatric Psychiatry*, 12, 61-66.
- Bennett, K. M. (1998). Longitudinal changes in mental and physical health among elderly, recently widowed men. *Mortality*, 3(3), 265-273.
- Bennett, K. M. (2005). Psychological wellbeing in later life: the longitudinal effects of marriage, widowhood and marital status change. *International Journal of Geriatric Psychiatry*, 20(3), 280-284.
- Bennett, K. M. (2010). "You can't spend years with someone and just cast them aside": augmented identity in older British widows. [Research Support, Non-U.S. Gov't]. *J Women Aging*, 22(3), 204-217.
- Bennett, K. M., & Morgan, K. (1992). Health, social functioning, and marital status: Stability and change among elderly recently widowed women. *International Journal of Geriatric Psychiatry*, 7, 813-817.
- Bennett, K. M., & Soulsby, L. K. (2012). Wellbeing in bereavement and widowhood. *Illness, Crisis & Loss*, 20(4), 321-337.
- Bonanno, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7, 511-535.
- Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., . . . Nesse, R. M. (2002). Resilience to Loss and Chronic Grief: A Prospective Study From

- Preloss to 18-Months Postloss. *Journal of Personality & Social Psychology*, 83(5), 1150-1164.
- Bonanno, G. A., Wortman, C. B., & Nesse, R. M. (2004). Prospective patterns of resilience and maladjustment during widowhood. *Psychology & Aging*, 19(2), 260-271.
- Bowling, A. (2005). Just one question: If one question works, why ask several? *Journal of Epidemiological and Community Health*, 59, 342-345.
- Carr, D. (2006). Methodological issues in studying late life bereavement. In D. Carr, R. Nesse & C. Wortman (Eds.), *Spousal bereavement in late life*. New York: Springer Publishing Company.
- Carr, D., House, J. S., Kessler, R. C., Nesse, R. M., Sonnega, J., & Wortman, C. (2000). Marital quality and psychological adjustment to widowhood among older adults: a longitudinal analysis. *Journals of Gerontology Series B-Psychological Sciences & Social Sciences*, 55(4), 197-207.
- Cheng, S.-T., & Chan, A. C. M. (2006). Relationship with others and life satisfaction in later life: do gender and widowhood make a difference? *Journals of Gerontology Series B-Psychological Sciences & Social Sciences*, 61(1), 46-53.
- Clark, A. E., & Georgellis, Y. (2013). Back to Baseline in Britain: Adaptation in the British Household Panel Survey. *Economica*, 80(319), 496-512.
- Coifman, K. G., Bonanno, G. A., & Rafaeli, E. (2007). Affect dynamics, bereavement and resilience to loss. [Peer Reviewed]. *Journal of Happiness Studies*, 8(3), 371-392.
- De Jong Gierveld, J., & Van Tilburg, T. (1999). *Manual of the Loneliness Scale*. Amsterdam: Vrije Universiteit: Updated from the printed version 23-11-2011. Retrieved from: [http://home.fsw.vu.nl/TG.van.Tilburg/manual\\_loneliness\\_scale\\_1999.html](http://home.fsw.vu.nl/TG.van.Tilburg/manual_loneliness_scale_1999.html).
- De Jong Gierveld, J., & Van Tilburg, T. (2006). A 6-item scale for overall, emotional, and social

- loneliness – Confirmatory tests on survey data. *Research on Aging*, 28(5), 582-598.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276-302.
- Gerrish, N., Dyck, M. J., & Marsh, A. (2009). Post-traumatic growth and bereavement. *Mortality*, 14(3), 226-244.
- Ha, J. H., & Ingersoll-Dayton, B. (2011). Moderators in the relationship between social contact and psychological distress among widowed adults. *Aging & Mental Health*, 15(3), 354-363.
- Hautzinger, M., & Bailer, M. (1993). *ADS: Allgemeine Depressions Skala*. Weinheim: Beltz Test.
- Holmes, T. H., & Rahe, R. H. (1967). Social readjustment rating scale. *Journal of Psychosomatic Research*, 11(2), 213-218.
- Hood, R., Hill, P., Spilka, B., (2009) *The psychology of religion, 4th edition: An empirical approach*. New York: The Guilford press. ISBN 1606233920.
- Itzhar-Nabarro, Z., & Smoski, M. J. (2012). A review of theoretical and empirical perspectives on marital satisfaction and bereavement outcomes: Implications for working with older adults. *Clinical Gerontologist*, 35(3), 257-269.
- Koren, C., & Lowenstein, A. (2008). Late-life Widowhood and Meaning in Life. *Ageing International*, 32(2), 140-155.
- Lee, G. R., DeMaris, A., Bavin, S., & Sullivan, R. (2001). Gender differences in the depressive effect of widowhood in later life. *Journals of Gerontology Series B-Psychological Sciences & Social Sciences*, 56(1), 56-61.

- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84(3), 527-539.
- Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective Well-Being and Adaptation to Life Events: A Meta-Analysis. *Journal of Personality and Social Psychology*, 102(3), 592-615.
- Michael, S. T., Crowther, M. R., Schmid, B., & Allen, R. S. (2003). Widowhood and Spirituality: Coping Responses to Bereavement. *Journal of Women & Aging*, 15(2/3), 145-165.
- Mroczek, D. K., & Kolarz, C. M. (1998). The Effect of Age on Positive and Negative Affect: A Developmental Perspective on Happiness. *Journal of Personality & Social Psychology*, 75(5), 1333-1349.
- Ong, A. D., Bergeman, C. S., Bisconti, T. L., & Wallace, K. A. (2006). Psychological resilience, positive emotions, and successful adaptation to stress in later life. *Journal of Personality and Social Psychology*, 91(4), 730-749.
- Ong, A. D., Fuller-Rowell, T. E., & Bonanno, G. A. (2010). Prospective predictors of positive emotions following spousal loss. *Psychology & Aging*, 25(3), 653-660.
- Ott, C. H., Lueger, R. J., Kelber, S. T., & Prigerson, H. G. (2007). Spousal bereavement in older adults: common, resilient, and chronic grief with defining characteristics. *Journal of Nervous & Mental Disease*, 195(4), 332-341.
- Pai, M., & Carr, D. (2010). Do personality traits moderate the effect of late-life spousal loss on psychological distress? *Journal of Health & Social Behavior*, 51(2), 183-199.
- Perrig-Chiello, P., Spahni, S., Höpflinger, F., Carr, D. (2015). Cohort and Gender Differences in Psychosocial Adjustment to Later-Life Widowhood, *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, doi:10.1093/geronb/gbv004.

- Prigerson, H. G., Maciejewski, P. K., & Rosenheck, R. A. (2000). Preliminary explorations of the harmful interactive effects of widowhood and marital harmony on health, health service use, and health care costs. *Gerontologist*, 40(3), 349-357.
- Pudrovskaya, T., & Carr, D. (2008). Psychological adjustment to divorce and widowhood in mid- and later life: Do coping strategies and personality protect against psychological distress? *Advances in Life Course Research*, 13, 283-317.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385-401.
- Reich, J.W., Zautra, A. , Hall, J.S. (2012). Handbook of adult resilience. New York: Guilford Press.
- Rossi, N. E., Bisconti, T. L., & Bergeman, C. S. (2007). The Role of Dispositional Resilience in Regaining Life Satisfaction after the Loss of a Spouse. *Death Studies*, 31(10), 863-883.
- Schimmack, U. (2008). The structure of subjective well-being. In Michael Eid & Randy J. Larsen (Eds). The science of well-being. New York: Guilford Press (p. 333-345).
- Schumacher, J. (2003). SWLS - Satisfaction with Life Scale. In J. Schumacher, A. Klaiberg & E. Brähler (Eds.), *Diagnostische Verfahren zu Lebensqualität und Wohlbefinden*. Göttingen: Hogrefe.
- Schumacher, J., Leppert, K., Gunzelmann, T., Straus, B., & Brähler, E. (2005). The Resilience Scale - A questionnaire to assess resilience as a personality characteristic. *Zeitschrift für Klinische Psychologie, Psychiatrie und Psychotherapie*, 53(1), 16-39.
- Soulsby, L. K., & Bennett, K. M. (2015). How relationships help us to age well. *The Psychologist*. 28(2), 110-113.
- Spahni, S., Morselli, D., Perrig-Chiello, P., & Bennett, K. (2015). Patterns of psychological adaptation to spousal bereavement in old age. *Gerontology*. doi: 10.1159/000371444

- Stroebe, M. S. (2004). Religion in Coping With Bereavement: Confidence of Convictions or Scientific Scrutiny?. *International Journal for the Psychology of Religion*, 14(1), 23-36.
- Stroebe, M. S., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet*, 370(9603), 1960-1973.
- Stroebe, M. S., Stroebe, W., & Schut, H. (2001). Gender differences in adjustment to bereavement: An empirical and theoretical review. *Review of General Psychology*, 5(1), 62-83.
- Utz, R., Swenson, K. L., Caserta, M., Lund, D., & DeVries, B. (2013). Feeling lonely versus being alone: loneliness and social support among recently bereaved persons. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*. doi: 10.1093/geronb/gbt075
- van der Houwen, K., Stroebe, M., Stroebe, W., Schut, H., van den Bout, J., & Wijngaards-De Meij, L. (2010). Risk factors for bereavement outcome: A multivariate approach. *Death Studies*, 34(3), 195-220.
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of nursing measurement*, 1(2), 165-178.
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, 9(8).
- Wittchen, H.-U., & Hoyer, J. (2006). Was ist Klinische Psychologie? Definitionen, Konzepte und Modelle. In H.-U. Wittchen & J. Hoyer (Eds.), *Klinische Psychologie & Psychotherapie* (2 ed.). Heidelberg: Springer.
- Wortman, C., & Boerner, K. (2011). Beyond the Myths of Coping with Loss: Prevailing Assumptions Versus Scientific Evidence In H. S. Friedman & R. C. Silver (Eds.),

*Foundations of health psychology* (pp. 285-324). New York, NY, US: Oxford University Press.

Table 1

*Comparative description of all variables in the widowed and married sample*

	Range	Widowed ( <i>n</i> = 480) <i>M</i> ( <i>SD</i> )/ % ( <i>n</i> )	Married ( <i>n</i> = 759) <i>M</i> ( <i>SD</i> )/ % ( <i>n</i> )	<i>T</i> , <i>X</i> <sup>2</sup>
<u><i>Psychological adaptation</i></u>				
Depressive symptoms	0-3	0.64 (0.44)	0.49 (0.37)	6.35***
Loneliness	1-5	1.90 (0.80)	1.70 (0.65)	4.74***
Life satisfaction	1-7	5.35 (0.97)	5.57 (0.83)	4.31***
<u><i>Intrapersonal resources</i></u>				
Trait resilience	1-7	5.49 (0.84)	5.49 (0.83)	0.08
<u><i>Relational factors, marital history</i></u>				
Marital happiness	1-10	8.48 (1.68)	8.63 (1.53)	1.56
Spousal support	1-5	4.30 (0.91)	4.20 (0.83)	1.88
<u><i>Contextual factors of spousal loss</i></u>				
Emotional valence	1-10	3.71 (2.74)	-	
Time since loss (in years)	0-5	3.07 (1.30)	-	
<u><i>Socio-demographic variables</i></u>				
Age	60-89	72.81 (7.82)	73.37 (8.16)	1.20
Gender (male)		42% (199)	53% (399)	14.54***
Educational Level				2.39
- Primary		14% (67)	17% (129)	
- Secondary		58% (271)	54% (402)	
- Tertiary		28% (133)	29% (213)	

\*\*\* *p* < .001.



Table 2

*Two-way analyses of variance with the factors marital status and gender for depressive symptoms, loneliness and life satisfaction*

	<u>Depressive symptoms</u>			<u>Loneliness</u>			<u>Life satisfaction</u>		
	df	MS	F	df	MS	F			
Marital status	1	5.79	36.88***	1	13.16	26.05***	1	13.00	16.60***
Gender	1	1.27	8.07**	1	3.57	7.07**	1	3.42	4.37*
Marital status * Gender	1	0.11	0.73	1	1.59	3.14	1	0.17	0.21
Error	1193	0.16		1222	.51		1224	0.78	

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 3

*Linear regression predicting depressive symptoms of widowed individuals*

	Depressive symptoms			
	Step 1	Step 2	Step 3	Step 4
<i>Socio-demographic variables</i>				
Age	.04	-.03	-.04	-.01
Gender (male)	-.05	-.07	-.07	-.05
Educational level				
- Primary <sup>a</sup>				
- Secondary	.01	.03	.04	-.02
- Tertiary	-.07	-.02	-.01	-.07
<i>Intrapersonal resource</i>				
Trait resilience		-.42***	-.43***	-.41***
<i>Relational context, marital history</i>				
Marital happiness			.14**	.11*
Spousal support			-.06	-.07
<i>Contextual factors of spousal loss</i>				
Emotional valence				-.22***
Time since loss				-.13**
$R^2$	.01	.18	.19	.26
Adjusted $R^2$	.00	.17	.18	.24
Change in $R^2$	.01	.17	.01	.06
F (change)	1.17	82.75	3.54	17.02
$df$	4	1	2	2
$p$	.33	.00	.03	.00

Notes. Standardized coefficients ( $\beta$ ) are reported.

<sup>a</sup>Reference category; \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 4

*Linear regression predicting loneliness of widowed individuals*

	Loneliness			
	Step 1	Step 2	Step 3	Step 4
<i>Socio-demographic variables</i>				
Age	-.02	-.10*	-.10*	-.07
Gender (male)	.11*	.10*	.10*	.12*
Educational level				
- Primary <sup>a</sup>				
- Secondary	.01	.01	.02	-.03
- Tertiary	-.01	.03	.04	-.02
<i>Intrapersonal resource</i>				
Trait resilience		-.42***	-.42***	-.40***
<i>Relational factors, marital history</i>				
Marital happiness			.03	-.00
Spousal support			-.04	-.05
<i>Contextual factors of spousal loss</i>				
Emotional valence				-.17**
Time since loss				-.12*
$R^2$	.01	.18	.18	.23
Adjusted $R^2$	.00	.17	.17	.21
Change in $R^2$	.01	.17	.00	.04
F (change)	1.26	84.98	0.31	11.35
$df$	4	1	2	2
$p$	.29	.00	.73	.00

Notes. Standardized coefficients ( $\beta$ ) are reported.

<sup>a</sup>Reference category; \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 5

*Linear regression predicting life satisfaction of widowed individuals*

	Life satisfaction			
	Step 1	Step 2	Step 3	Step 4
<i>Socio-demographic variables</i>				
Age	.05	.11*	.12**	.10*
Gender (male)	.01	.03	.00	.00
Educational level				
- Primary <sup>a</sup>				
- Secondary	.03	.03	.01	.04
- Tertiary	.06	.02	.00	.04
<i>Intrapersonal resource</i>				
Trait resilience		.39***	.37***	.36***
<i>Relational factors, marital history</i>				
Marital happiness			-.06	-.03
Spousal support			.22***	.23***
<i>Contextual factors of spousal loss</i>				
Emotional valence				.17***
Time since loss				.02
$R^2$	.01	.15	.19	.22
Adjusted $R^2$	.00	.14	.18	.20
Change in $R^2$	.01	.15	.04	.03
F (change)	0.51	71.90	8.92	7.58
$df$	4	1	2	2
$p$	.73	.00	.00	.00

Notes. Standardized coefficients ( $\beta$ ) are reported.

<sup>a</sup>Reference category; \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .